

REMARKS

Claims 7, 8 and 10-17 are pending in the above-identified application. Claims 7, 8 and 10-17 were rejected.

With this Amendment, claims 7 and 17 were amended. Accordingly, claims 7, 8, 10-17 are at issue in the above-identified application.

35 U.S.C. § 112 Indefiniteness Rejection of Claims

Claims 7, 8, and 10-17 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description because the independent claims recite a temperature of “about 70 degrees”. As detailed infra, said limitation had been introduced in a prior amendment under the erroneous impression that it was needed to differentiate the subject matter of the claims from non-analogous prior art. The limitation has therefore been deleted with the present amendment, and the rejection is therefore moot.

35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 7, 8, 10-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gozdz et al.* (U.S. Patent No. 5,840,087) in view of *Kumeuchi et al.* (U.S. Patent No. 6,156,080). Applicants submit that the rejection is improper in that the cited references disclose liquid-electrolyte batteries, and are therefore not germane to the solid-electrolyte batteries of the present invention. There simply is no solid electrolyte in this art, and no laminating of solid electrolyte layers is disclosed either.

The present invention is directed to methods for manufacturing batteries comprising a solid electrolyte layer such as a gel-like solid electrolyte layer (*See* page 2, first paragraph of the present application). The claims specifically recite the formation of solid electrolyte layers on both sides of each of a positive electrode and a negative electrode. Thereafter the solid

electrolyte layers are wound and then subject to heat treatment to integrate them in one continuous seamless layer.

Such a solid electrolyte layer is manufactured for example by applying an electrolyte solution containing nonaqueous solvent, a salt of an electrolyte and matrix polymers to the two sides of the positive electrode sheet and the negative electrode sheet. Then, the solution is dried so that the solvent is removed. A solid electrolyte layer can then be formed on each of the positive electrode active material layer and the negative electrode material layer (*See* page 2, last paragraph to page 3, first paragraph), and lamination follows.

Importantly, such solid electrolyte layers are different from and an alternative to traditional polymer separators, which require a heavy and thick packaging to prevent leakage of the liquid electrolyte. This difference is specifically set forth in the specification of the present application (*See* page 1, last paragraph). Such traditional polymer separators comprise a porous polymer separator impregnated with an electrolyte solution, wherein the separator is placed between the electrodes (*Id.*).

Gozdz et al. does not disclose methods for laminating solid electrolyte layers, wherein such layers are already on the surface of the electrodes. Rather, the cited reference discloses the use of traditional separators, as set forth in Example 1, i.e. “tough, flexible, plasticized films” of polymeric origin (*See* col. 3, ll. 51-67) that are prepared as a separate unit from the electrodes. As such, the separators of *Gozdz et al.* of Example 1 are then assembled, sandwich-like, between the electrodes and laminated thereto (*See* col. 5, ll. 46-49; Fig. 2).

Accordingly, *Gozdz et al.* teaches methods for laminating different structures comprising different materials than those of the present invention, that is batteries with plastic ion conducting members between the electrodes rather than solid electrolyte layers such as gel-like

electrolyte layers. As laminating plastic layers can require very different conditions from laminating gels, methods for obtaining the latter cannot be deemed to be obvious in view of methods for obtaining the former such as those of *Gozdz et al.*, which teach nothing relating to solid electrolyte layers such as gel-like solid electrolyte layers. The rejection is therefore based upon non-analogous art and should be removed.

Moreover, claim 7 has been amended to remove the temperature limitation to the lamination step. This limitation had been added in the Response to the Office Action of May 6, 2005 in order to differentiate the claimed subject matter from that of *Gozdz et al.* In view of the foregoing, the addition of such a limitation was unnecessary and evidently made in view of an erroneous reading of the cited reference. Accordingly, entry of the amendment is respectfully requested.

In view of the foregoing, Applicants submit that the application is in condition for allowance. Notice to that effect is requested.

Respectfully submitted,

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